GROUP EFFECTIVENESS RESEARCH LABORATORY

DEPARTMENT OF PSYCHOLOGY

UNIVERSITY OF ILLINOIS

URBANA, ILLINOIS

Quarterly Report

October, 1968

Communication, Cooperation, and Negotiation

in Culturally Heterogeneous Groups

Report of Progress under Contract ARPA No. 454

Project Code 2870, Nonr 1834(36)

with the

Advanced Research Projects Agency

Fred E. Fiedler and Harry C. Triandis

Principal Investigators

General

We have given a great deal of emphasis to finding appropriate situations which will permit the field evaluation of culture assimilators. Fiedler had conferences at Fort Bragg, North Carolina, with officers of the Special Warfare School, and between September 24 and October 25 he visited Thailand, Iran, and Athens for extended planning conferences designed to implement the evaluation studies. A letter reporting this trip is attached. In general, the culture assimilators have received an excellent reception from military as well as civilian officials abroad, and there is no question at this moment that this approach to culture training would meet an urgently felt need. Studies of leadership, relevant for the optimal utilization of the culture assimilator programs are being conducted in the United States as well as abroad, as indicated below.

Triandis is spending the year at the Center for International Studies at Cornell University writing a final report for Sub-Project I. The report will be in the form of a book titled The Analysis of Subjective Culture. It will present a theoretical integration of the concepts developed in Sub-Project I as well as a discussion of the following: methodological problems of cross-cultural research; approaches to the analysis of subjective culture, such as the use of multidimensional scaling, componential analysis, facet analysis, factor analysis and feature analysis in the determination

of the meaning of concepts; cross-cultural studies of a variety of cognitive

struct es, such as stereotypes, roles, behavioral intentions, attitudes

and values; implications for cross-cultural training, economic development,

and international political behavior. A vast literature on these ᴛopics is

currently being surveyed and integrated with the work produced under the

contract. The book will be completed by June 1969.

Field Evaluation in Greece

Terence Mitchell spent the summer in Greece at the Institute of

Anthropos to gather material for the development of a Greek Culture

Assimilator. Most of the time was spent gathering "critical incidents"

which are situations in which Americans and Greeks have had misunderstandings

of one kind or another.

Extensive interviews with both American and Greek personnel in the

military, business, government and academic areas yielded around 150-200

of these incidents. We are currently writing these incidents up as full

episodes including alternative interpretations and feedback material for

each explanation. In the next few months we will begin a variety of

validation steps before the final preparation of the instrument.

The Honduras Study

The Honduras study is concerned with the determinants of performance

and adjustment of voluntary medical teams in Central America. The 1966

data showed that leadership style and situational stress determined adjustment

and performance in a manner which was consistent with predictions from

Fiedler's Contingency Model of leadership. These findings have been

accepted for publication by Human Relations and will appear next year.

Analysis of the 1967 data indicate that these findings will be corroborated to a l ge extent. Progress results also indicate that culture training using the Honduras Assimilator leads to a significant improvement in team adjustment. Many hypotheses about the relationships between leadership style, team organization and team performance which were suggested by the 1966 and 1967 data are being investigated in the 1968 study. At present all questionnaires from the 1968 study have been processed and statistical analyses are just beginning.

Semantic Game Project

The Semantic Game I nears completion. The first technical report by C. E. Osgood and J. G. Ayer, "Further validation and methodological extension of ten a priori semantic features for interpersonal verbs," No. 66, November, 1968, will be released. A second paper by J. G. Ayer, "Meaning similarity as a dimension of group performance," nears completion.

Osgood's extensive report on semantic feature analysis "Interpersonal verbs and interpersonal behavior" is being released as technical report No. 64, November, 1968.

Preparation for a second phase of The Semantic Game study has begun. This work will constitute Mrs. Ayer's dissertation. Permission has been obtained to use Negro and white high school students from Central High School in Champaign. Groups having members with same or mixed race will be assembled with "similar" and "all different" semantic meanings for 30 common interpersonal verbs will play the semantic game. Semantic similarity will be assessed by the same method used in the previous study -- subject factors are determined from judgments of permissibility in ordinary English of all

pairs of the 30 interpersonal verbs and their "best fitting" adverbs. A new dimension is being added to the proposed study. Similarity of the member's behavioral intentions in regard to the group task. This develops from the notion that "cultural" differences are reflected basically onto two dimensions: (a) degree of meaning similarity regarding the task elements; (b) degree of similarity of behavioral expectations in the task situation (i.e., proper protocol). An instrument is being developed to assess such intentions. The proposed analysis will be mostly concerned with the agreement between the behavior intentions and actual member behavior (from observer reports) and the relative amount of variance in the products accounted for by the two dimensions.

Professional Personnel

(Contract Nonr 1834 (36)

Personnel Supported by Contract

Ayer, Judith	Research Assistant	50%
Bates, Peter	Research Assistant	50%
Hewett, Thomas	Research Assistant	50%
Schwartz, Steven	Research Assistant	50%
Wood, Michael	Research Assistant	50%

Other Personnel Working on ARPA ONR Project or Related Research*

Chemers, Martin	Assistant Professor (Research Associate until 9/1/68; now at the University of Delaware)
Fiedler, Fred E.	Professor
Mitchell, Terence	Research Associate
Nealey, Stanley	Assistant Professor
O'Brien, Gordon	Research Assistant Professor
Osgood, Charles	Professor
Triandis, Harry	Professor

Foreign Consultants

Archer, W. K.	Teheran
Vassiliou, V. (M. Nassiakou)	Greece
Lekhyananda, Duangduen	Thailand

*Paid from other funds.

TECHNICAL REPORTS AND PUBLICATIONS

Fiedler, F. E., Bass, A. R., & Fiedler, Judith M. The leader's perception of coworkers, group climate, and group creativity: A cross-validation. Technical Report No. 1, May, 1961.

Bass, A. R., Hatton, G., & McHale, T. J. Originality, intelligence, and performance on problem-solving tasks: A pilot study of their relationship. Technical Report No. 2, April, 1962.

McHale, T. J. & Stolurow, L. M. Concept formation with metrically multi-valued clues and response categories. Technical Report No. 3, April, 1962.

Fiedler, F. E. & Meuwese, W. A. T. The leader's contribution to performance in cohesive and uncohesive task groups. Technical Report No. 4, April, 1962. Also in Journal of Abnormal and Social Psychology. 1963, 67, 83-87.

Triandis, H. C., Mikesell, Eleanor H., & Ewen, R. B. Some cognitive factors affecting group creativity. Technical Report No. 5, May, 1962. Also in Human Relations, 1965, 18, 33-55.

Triandis, H. C., Bass, A. R., Ewen, R. B., & Mikesell, Eleanor H. Team creativity as a function of the creativity of the members. Technical Report No. 6, April, 1962. Also in Journal of Applied Psychology, 1963, 47, 104-110.

Anderson, L. R. & Fiedler, F. E. The effect of participatory and supervisory leadership on group creativity. Technical Report No. 7, November, 1962. Also in Journal of Applied Psychology, 1964, 48, 227-236.

Triandis, H. C., Mikesell, Eleanor H., & Ewen, R. B. Task set and attitudinal heterogeneity as determinants of dyadic creativity. Technical Report No. 8, November, 1962. Also in Human Relations, 1965, 18, 33-55.

Hatton, G. I. Two-choice conditional probability learning with meaningful and non-meaningful stimuli. Technical Report No. 9, October, 1962.

Fiedler, F. E. A Contingency Model of leadership effectiveness. Technical Report No. 10, July, 1963. Also in L. Berkowitz (Ed.), Advances in Experimental Social Psychology, 1964, Vol. 1, 149-1901.

Frase, L. The effect of social reinforcers in a programmed learning task. Technical Report No. 11, September, 1963.

Triandis, H. C. The influence of culture on cognitive processes.
Technical Report No. 12, October, 1963. Also in L. Berkowitz
(Ed.), <u>Advances in Experimental Social Psychology, Vol. 1.</u>
New York: Academic Press, 1964.

Bereiter, C. Curricular and specific transfer to problem solving ability.
Technical Report No. 13, October, 1963.

Morris, C. G. & Fiedler, F. E. Application of a new system of inter-
action analysis to the relationships between leader attitudes and
behavior in problem-solving groups. Technical Report No. 14,
March, 1964.

Triandis, H. C., Fishbein, M., & Hall, Eleanor R. Person perception
among American and Indian students. Technical Report No. 15,
June, 1964. Also in <u>Modern Trends in Psychology</u>, Bombay, 1967.

Triandis, H. C. & Hall, Eleanor R. Creative problem solving in culturally
heterogeneous group. Technical Report No. 16, June, 1964.

Forster, K. I., Triandis, H. C., & Osgood, C. E. An analysis of the use
of the method of triads in research on the measurement of meaning.
Technical Report No. 17, June, 1964.

Anderson, L. R. Some effects of leadership training on intercultural
discussion groups. Technical Report No. 18, June, 1964.

Katz, Evelyn W. A content-analytic method for studying interpersonal
behavior. Technical Report No. 19, October, 1964.

Katz, Evelyn W. A study of verbal and nonverbal behaviors associated
with social roles. Technical Report No. 20, October, 1964.

Fishbein, M., Landy, Eva, & Hatch, Grace. Some determinants of an
individual's esteem for his least preferred coworkers: An
attitudinal analysis. Technical Report No. 21, February, 1965.

Meuwese, W. A. T. & Fiedler, F. E. Leadership and group creativity under
varying conditions of stress. Technical Report No. 22, March,
1965.

Hackman, J. R. & Jones, L. E. Development of a set of dimensions for
analyzing verbal group products. Technical Report No. 23, July, 1965.

Hackman, J. R. Tests, questionnaires and tasks of the Group Effectiveness
Research Laboratory; 1951-1964. Technical Report No. 24, July, 1965.

Fiedler, F. E. The effect of cultural heterogeneity, leader power, and
leader attitudes on group performance: A test of the Contingency
Model. Technical Report No. 25, August, 1965. Also in <u>Journal of
Experimental Social Psychology, Vol. 2</u>, No. 3, 1966, 237-264.

Davis, E. E. & Triandis, H. C.   An exploratory study of inter-cultural negotiation.   Technical Report No. 26, October, 1965.   Also in *Journal of Personality and Social Psychology*, 1965, 2, 715-725.

Parisi, D.   Social reinforcement performance in programmed learning in Italy.   Technical Report No. 27, September, 1965.

Triandis, H. C. & Davis, E. E.   Some methodological problems concerning research on negotiations between monolinguals.   Technical Report No. 28, December, 1965.

Fiedler, F. E. & Meuwese, W. A. T.   The effect of stress on the contribution of member intelligence to group creativity.   Technical Report No. 29, January, 1966.

Anderson, L. R.   Initiation of structure, consideration, and task performance in intercultural discussion groups.   Technical Report No. 30, April, 1966.

Chemers, M. M., Fiedler, F. E., Lekhyananda, D., & Stolurow, L. M. Some effects of cultural training on leadership in heterocultural task groups.   Technical Report No. 31, April, 1966.   Also in *International Journal of Psychology*, 1966, 1, 301-314.

Davis, E.   A methodological study of behavioral and semantic differential scales relevant to intercultural negotiations.   Technical Report No. 32, June, 1966.

Fielder, F. E.   A review of research on ASo and LPC scores as measures of leadership style.   Technical Report No. 33, May, 1966.

Triandis, H. C., Shanmugam, A. V., & Tanaka, Y.   Interpersonal attitudes among American, Indian, and Japanese students.   Technical Report No. 34, July, 1966.   Also in *International Journal of Psychology*, 1966, 3, 468-472.

Triandis, H. C.   Toward an analysis of the components of interpersonal perception.   Technical Report No. 35, December, 1966.   Also in Muzafer Sherif, Carolyn Sherif, and Donald P. Kent (Eds.) *Attitudes, ego involvement and attitude change*.   New York: Wiley, 1967.

Davis, E. E. & Grobstein, Nadine.   Multiple factor analysis of interpersonal perception.   Technical Report No. 36, December, 1966.

Triandis, H. C., Vassiliou, Vasso, & Thomanek, E. K.   Social status as a determinant of respect and friendship acceptance.   Technical Report No. 37, August, 1966.   Also in *Sociometry*, 1966, 29, 396-405.

Naidoo, Josephine C. An inquiry into the structure of attitudes and behavior: A validation study. Technical Report No. 38, August, 1966.

Osgood, C. E. Speculation on the structure of interpersonal intentions. Technical Report No. 39, September, 1966.

Parisi, D. Italian word association norms. Technical Report No. 40, July, 1966.

Parisi, D., Cappelli, U., & Stolurow, L. M. Contextural predictability and frequency factors. Technical Report No. 41, August, 1966.

Stolurow, L. M. & Santhai, Suthita (with assistance of Koopman, Ray). Critical incidents with heterocultural interactions. Technical Report No. 42, November, 1966.

Triandis, H. C., & Vassiliou, Vasso. Frequency of contact and stereotyping. Technical Report No. 43, October, 1966. Also in Journal of Personality and Social Psychology, 7, No. 3, November, 1967, 316-328.

Fiedler, F. E. Leadership style and the performance of coacting groups. Technical Report No. 44, October, 1966.

Triandis, H. C., Vassiliou, Vasso, & Nassiakou, Maria. Some cross-cultural studies of subjective culture. Technical Report No. 45 (67-1), January, 1967. Also in Journal of Personality and Social Psychology, Monographs, 1968, Vol. 8, No. 4, Part 2, 1-42.

O'Brien, Gordon. Methods of analyzing group tasks. Technical Report No. 46 (67-2), January, 1967.

Hunt, J. G. A test of the leadership contingency model in three organizations. Technical Report No. 47 (67-3), January, 1967.

Nealey, S. M. & Blood, M. Leadership performance of nursing supervisors at two organizational levels. Technical Report No. 48 (67-4), January, 1967.

Triandis, H. C., Vassiliou, Vasso, & Nassiakou, Maria. Some cultural differences in the perception of social behavior. Technical Report No. 49 (67-5), February, 1967. Also in Journal of Personality and Social Psychology Monograph, 1968, Vol. 8, No. 4, Part 2, 1-42.

Triandis, H. C., Tucker, L. R., Koo, Ping, & Stewart, T. Three-mode factor analysis of the behavioral component of interpersonal attitudes. Technical Report No. 50 (67-6), February, 1967.

Ninane, P. & Fiedler, F. E. Member reactions to success and failure of task groups. Technical Report No. 51 (67-7), May, 1967. Also accepted for publication in Human Relations.

Fishbein, M., Landy, Eva, & Hatch, Grace. Consideration of two assumptions underlying Fiedler's contingency model for the prediction of leadership effectiveness. Technical Report No. 52 (67-8), May, 1967.

Kilty, K. M. A methodological and theoretical consideration of the implicative meaning procedure. Technical Report No. 53 (67-9), May, 1967.

Nayar, E. S. K., Touzard, H., & Summers, D. Training, tasks and mediator orientation in heterocultural negotiations. Technical Report No. 54 (67-10), May, 1967. Also accepted for publication in Human Relations.

Triandis, H. C. & Vassiliou, Vasso. A comparative analysis of subjective culture. Technical Report No. 55 (67-11), October, 1967.

Triandis, H. C., Kilty, K. M., Shanmugam, A. V., Tanaka, Y., & Vassiliou, Vasso. Cultural influences upon the perception of implicative relationship among concepts and the analysis of values. Technical Report No. 56 (68-1), April, 1968.

Wichiarajote, W. & Wilkins, M. Role differentiation in Thai social structure in terms of a semantic analysis of Thai pronouns and roles. Technical Report No. 57 (68-2), June, 1968.

Ilgen, D. R. & O'Brien, G. The effects of task organization and member compatibility on leader-member relations in small groups. Technical Report No. 58 (68-3), July, 1968.

Vassiliou, V., Triandis, H. C., Vassiliou, G., & McGuire, H. Reported amount of contact and stereotyping. Technical Report 59 (68-4), August, 1968.

Triandis, H. C. & Vassiliou, V. Interpersonal influence and employee selection in two cultures. Technical Report 60 (68-5), August, 1968.

Chemers, M. M. Cross-cultural training as a means for improving situational favorableness. Technical Report 61 (68-6), August, 1968.

Kilty, K. M. Further considerations of the implicative meaning procedure: A replication and extension. Technical Report 62 (68-7), October, 1968.

Thomanek, Erich K. The measurement of implicative meaning. Technical Report 63 (68-8), November, 1968.

Osgood, C. E. Interpersonal verbs and interpersonal behavior. Technical Report 64 (68-9), November, 1968.

Kilty, K. M. Attitudinal affect and behavioral intentions. Technical
    Report 65 (68-10), November, 1968.

Osgood, C. E. & Ayer, J. G. Further validation and methodological extension
    of ten a priori semantic features for interpersonal verbs and adverbs.
    Technical Report 66 (68-11), November, 1968.

Fiedler, F. E. A theory of leadership effectiveness. New York: McGraw-Hill, 1967.

Fiedler, F. E. The effect of culture training on leadership, organizational performance, and adjustment. Naval Research Peviews, 1968 (July), Vol. 21, No. 7, 7-13.

Fiedler, F. E. Effective leadership-An organizational problem. Psychology Today, 1968, in press.

Hackman, J. R., Jones, L. J. & McGrath, J. E. A set of dimensions for describing the general properties of group-generated written passages. Psychological Bulletin, 1967, 67, 379-390.

Hunt, J. G. Fiedler's leadership contingency model: An empirical test in three organizations. Organizational Behavior and Human Performance, 1967, 2, No. 3, 290-308.

Hunt, J. G. Leadership in organizations: Some new directions in research. In A. Filley (Ed.), Proceedings of the tenth annual midwest academy of management meeting. Carbondale, Ill.: Bureau of Business Research, Southern Illinois University, 1967, 49-60.

Hunt, J. G. Breakthrough in leadership research. Personnel Administration, 1967, 30, No. 5, 38-44.

Hunt, J. G. Another look at human relations training. Training and Development Journal, 1968, 22, No. 2, 2-10.

Hunt, J. G. Organizational leadership: Some theoretical and empirical considerations. Business Perspectives, 1968, 4, 16-24.

O'Brien, G. E. The measurement of cooperation. Organizational Behavior and Human Performance, November, 1968.

O'Brien, G. E. Leadership in organizational settings. Journal of Applied Behavioral Science, 1969, in press.

O'Brien, G. E. & Ilgen, D. The effects of organizational structure, leadership style and member compatibility upon small group creativity. Proceedings, 76th Annual Convention, APA, 1968.

Summers, D. A. Rule versus vue learning in multiple probability tasks. Proceedings, 75th Annual Convention, APA, 1967, 43-44.

Summers, D. A. & Oncken, G. The logical consistency of person perception Psychonomic Science, 1968, 10, 63-64.

Summers, D. A. & Stewart, T. Regression models of foreign policy judgments. Proceedings, 76th Annual Convention, APA, 1968, 195-196.

Summers, D. A., Stewart, T. & Oncken, G. Interpersonal conflict in heterocultural dyads. International Journal of Psychology, in press.

Triandis, H. C., Vassiliou, V., & Nassiakou, M. Three cross-cultural studies of subjective culture. Journal of Personality and Social Psychology Monograph Supplement, 1968, Vol. 8, No. 4, Part 2, 1-42.